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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,415	04/07/2005	Yuji Nagano	P27700	4904
7055 7590 12/24/2008 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191				
EXAMINER CHOI, STEPHEN				
ART UNIT		PAPER NUMBER		
3724				
NOTIFICATION DATE		DELIVERY MODE		
12/24/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/530,415

Applicant(s)

NAGANO ET AL.

Examiner

Stephen Choi

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-13 is/are pending in the application.
- 4a) Of the above claim(s) 5 and 8-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4, 6 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2-4 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 7-323403 (hereafter '403) in view of Hopper et al. (U.S. 6,520,722).

'403 discloses the invention substantially as claimed including left and right set teeth, each dovetail shaped set tooth having a gradually enlarged tooth tip and opposing sides inclined in generally the same direction (e.g., Figure 2). '403 fails to disclose a straight tooth including a dovetail shaped/bevel-dovetail shaped straight tooth having a tooth tip gradually enlarged in the lateral direction. Hopper teaches the use of a dovetail shaped/bevel-dovetail shaped straight tooth having a tooth tip gradually enlarged in the lateral direction (e.g., Figure 5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a straight tooth as taught by '623 on the device of '403 in order to provide better penetration rates to improve cutting efficiency. Furthermore, '403 fails to teach an upper surface of each tooth including the tooth tip defining a planar inclined surface. However, it would have been obvious matter of design choice to a person of ordinary skill in the art to modify the upper surface of each tooth including the tooth tip to be a planar inclined surface instead of the slightly curved surface because applicant has not disclosed the planar

inclined surface provides an advantage, is used for particular purpose, or solves a stated problem. One of ordinary skill in the art would have expected the modified arrangement of '403 patent and applicant's invention, to perform equally well with either arrangement since both arrangements would have performed the same function. Regarding claims 3 and 7, the modified device of '403 fails to teach a height of each of the left and right set teeth being smaller than or substantially equal to that of the straight tooth. However, Hooper teaches that the height of teeth being lower than that of the preceding tooth (e.g., col. 6, lines 16-29). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the modified device of '403 to provide the height of set teeth being smaller than that of the straight tooth as taught by Hooper in order to facilitate enlarging of a kerf to improve passage of the blade.

Response to Arguments

3. Applicant's arguments filed September 15, 2008 have been fully considered but they are not persuasive.

Applicants argue that the modified device of '403 does not teach a planar inclined surface as amended.

The examiner agrees that the modified device of '403 does not disclose the planar inclined upper surface. However, it would have been an obvious matter of design choice to a person of ordinary skill in the art to modify the upper surface of each tooth including the tooth tip to be a planar inclined surface for the reason set forth

above. It is noted that a tooth including a tooth tip with an inclined planar upper surface is old and well known in the art.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chapin and Cook are cited to show related devices.
5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Choi whose telephone number is 571-272-4504. The examiner can normally be reached on Monday-Thursday 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen Choi/
Primary Examiner, Art Unit 3724
19 December 2008